



Title: Photonic Computing for Transformative AI

Abstract: The emergence of Large Language Models that require no fine-tuning and only a few demonstrations to understand tasks and perform them, has recently taken the world of Artificial Intelligence by surprise. This transformative AI has also fueled a quest for larger such models that may include multimodalities (images, videos). The downside of these models resides in the vast amount of computations required to train them and to make inferences with them. For instance, with 175 billion parameters, training OpenAI GPT-3 is thought to have required the equivalent of a month of continuous computing time of several thousand high-end GPUs. In this talk, we will show how, at LightOn, we are devising a photonic computing hardware technology in tandem with new algorithms to train present and future Large Scale AI Models.

Biography: Igor Carron is the CEO and co-founder of LightOn a start-up company based in Paris, France. Over the years, Igor has developed expertise in leading engineering groups in complex engineering projects (Nuclear and Aerospace). He is the writer of a blog on Compressive Sensing and Machine Learning that garnered more than 8 million views. Since 2013, he has organized the Paris Machine Learning meetup with over 100+ meetups, 300+ speakers, and 8000 members. Igor has a diplôme d'ingénieur from INPG, Grenoble, France, and a Ph.D. from Texas A&M University.